

Amendment to the Drawings:

The attached sheet of drawings includes a new Figure 1A. In Figure 1A, arrows depicting airflow from the slots have been added to the structure shown in original Figure 1.

Attachment: Replacement Sheet

REMARKS

The Office Action dated February 25, 2005 has been received and carefully studied.

The Examiner objects to the drawings under 37 C.F.R. 1.83(a) as failing to show the discharging of air parallel to the web, and air discharged from the primary discharge slot and gathered into the air stream of the secondary discharge slot in a direction parallel to the web transport direction. By the accompanying amendment to the drawings, these features have now been shown in a new Figure 1A. The specification has been amended accordingly. No new matter has been added.

The Examiner rejects claims 1, 4 and 5 under 35 U.S.C. 102(b) as being anticipated by Lepisto, U.S. Patent No. 4,932,140. The Examiner states that Lepisto discloses an air foil for floating a web of material, comprising primary discharge slot 18 and a second discharge slot 17 spaced from and stepped down from the primary discharge slot, a first web support surface between the primary and secondary discharge slots, and a second web support surface downstream of the secondary discharge slot in the direction of web travel, the second web support surface comprising a wing portion 23 that slopes downwardly as it extends away from the secondary discharge slot, and a diffuser for

uniformly distributing air to the primary discharge slot and the secondary discharge slot.

The rejection is respectfully traversed.

Lepisto discloses a pressure nozzle arrangement for treating running webs. Each nozzle has a first discharge slot 18 arranged so that gas emitted therefrom follows along and remains in contact with the carrying face 16 of the nozzle. A second discharge slot 17 is positioned on the opposite side of the nozzle body so that gas emitted therefrom is directed towards the gas emitted from the first nozzle 18. A pressure pad is thus formed. The Lepisto pressure nozzles are not air foils as required by the instant claims. In addition, the plane part 23 of the outer wall of the nozzle body is not a web support surface as stated by the Examiner. The only web support surface of the Lepisto nozzle is found between the two nozzles 18 and 17. That is, the secondary face on the Lepisto patent is not a face for flotation, but only a formed angle to discharge the air in a direction perpendicular to the web W. Indeed, those skilled in the art readily appreciate that any secondary web support surface that falls away from the horizontal web position by more than 10 degrees can no longer support the web. In order to create a draw down force the secondary surface must be a minimum of 3" long

and not fall away from the horizontal position of the web by more than 10 degrees.

In contrast, the instant step foil is a true one-sided flotation air foil with the primary slot creating a positive pressure, which supports the web, and the secondary slot creates a negative pressure, which hold the web down so it does not blow up out of control.

The Examiner rejects claims 1-7 under 35 U.S.C. 102(b) as being anticipated by Vits, U.S. Patent No. 3,763,571. The Examiner states that Vits discloses an air foil for floating a web of material, comprising primary discharge slot (left side slot in Figure 3) and a second discharge slot spaced from and stepped down from the primary discharge slot (right side slot in Figure 3), a first web support surface between the primary and secondary discharge slots, and a second web support surface downstream of the secondary discharge slot in the direction of web travel (right side in Figure 3), the second discharge slot discharging air parallel to the web, air being discharged from the primary discharge slot being gathered into the air stream of the secondary discharge slot in a direction parallel to the web transport direction, the second web support surface comprising a wing portion that slopes downwardly as it extends away from the secondary discharge

slot, and a diffuser 5 for uniformly distributing air to the primary discharge slot and the secondary discharge slot.

By the accompanying amendment, claims 1 and 6 have been amended to recite that the first web support surface is flat. Support for the amendment can be found at page 10, lines 7-10 and in Figures 1 and 4, for example.

The combination of the two discharge slots (primary and secondary) on two face areas, including a flat surface between the primary and secondary discharge slots, creates exceptional web draw down force. This web draw down force flattens web wrinkles effectively. In addition, the step down location of the secondary slot allows air from the primary slot to be gathered into the secondary slot air stream, and results in excellent flotation height for higher tensioned webs.

In contrast, the Vits nozzles have curved surfaces between the two slots. In particular, in the embodiments of Figures 1 and 2 of Vits, the tiltable piece 6, which defines the surface between the two slots, is convex. Indeed, in the embodiment of Figure 2, the tiltable piece 6 is tilted to have an airplane wing profile. Vits nowhere discloses or suggests a flat surface between the two slots as is now claimed.

New claims have been added to further define the invention.

The remaining prior art is believed to have been properly not relied upon in rejecting any claim.

Reconsideration and allowance are respectfully requested in view of the foregoing.

Respectfully submitted,


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